

**Addendum to the Costco Wholesale Project
Environmental Impact Report
SCH # 2011112025**

Prepared for:

City of Ukiah
300 Seminary Ave
Ukiah, CA 95482

Prepared by:

DUDEK
980 9th Street, Suite 1750
Sacramento, CA 95814
Contact: Brian Grattidge

NOVEMBER 2014

Addendum to the Costco Wholesale Project EIR

TABLE OF CONTENTS

<u>Section</u>	<u>Page No.</u>
1 SUMMARY	1
2 COSTCO WHOLESALE PROJECT	2
3. MINOR CHANGES TO THE PROJECT	3
3.1 Minor Changes to the Project Description	3
3.2 Improvement and Purchase and Sale Agreements	4
3.3 Drainage Plan and Minor Changes to the Site Plan	4
4. ENERGY	8
4.1 Introduction	8
4.2 Energy Resources	8
4.2.1 Significance Criteria	8
4.2.2 Energy Conserving Features of the Project	9
4.2.3 Construction Energy Usage	10
4.2.4 Operational Energy Usage	11
4.2.5. Conclusions	15
5 UTILITIES	15
6 CONCLUSION	17
ATTACHMENT A.....	21
Energy Fuel Usage Calculations	21
ATTACHMENT B.....	22
Title 24 Performance Certificate of Compliance, 12/17/13	22
TABLES	
Table 1 Peak Design Load	11
Table 2 Transportation Fuels, Project Operations	12
Table 3 California Energy Content	16
FIGURES	
Figure 2-3 Revised Site Plan	19

Addendum to the Costco Wholesale Project EIR

INTENTIONALLY LEFT BLANK

Addendum to the Costco Wholesale Project EIR

1 SUMMARY

The Costco Wholesale Project (Project) is a proposed Costco Wholesale Warehouse within the City of Ukiah. An Environmental Impact Report (EIR) was prepared by the City of Ukiah and certified by the City Council of Ukiah on December 18, 2013. Following certification of the EIR, the City approved the necessary entitlements for the Project, including rezoning of the Project Site and a Site Development Permit.

Subsequent to the certification of the EIR, the City and the Successor Agency to the former Ukiah Redevelopment Agency (Successor Agency) entered a 3-Party Agreement under which the Successor Agency would sell and Costco would buy the approximately 15.33 acre Project Site, and the City would construct certain road improvements at the intersection of U.S. Highway 101 and Talmage Road (101/Talmage Improvements). Because that agreement provided for the sale of the Project Site owned by the Successor Agency, Health and Safety Code Section 34181(a) and (f) required approval of that agreement by an Oversight Board and the California Department of Finance (DOF). While the Oversight Board approved the agreement, the DOF disapproved the agreement on April 23, 2014. As a consequence, the City and the Successor Agency are required to revise the 3-Party Agreement in order to obtain DOF approval. To accomplish this, the 3-Party Agreement was replaced by two agreements: (1) a Real Property Purchase and Sale Agreement (PSA) between the Successor Agency and Costco; and (2) an Improvement Agreement between the City and Costco (Improvement Agreement). This separation clarifies the respective rights and obligations of the City from those of the Successor Agency without significantly changing those rights and obligations. The Costco Wholesale Project EIR considered all phases of the project and the potential effects on the environment. However, as this action was not identified as a necessary entitlement in the EIR, this Addendum describes the minor change to the project entitlements.

The certified EIR included Mitigation Measure 3.6.4, requiring the Project applicant to prepare and submit a Final Drainage Plan to the City Engineer and the North Coast Regional Water Quality Control Board (Regional Board) for approval. This measure provides that the design level plan shall address post-project downstream peak flows, and address potential modification to the drainage facilities within the U.S. 101 right of way. This plan has been submitted to the City and Regional Board as required. In order to accomplish the performance criteria of the Mitigation Measure, minor revisions to the Project Site Plan are required. The Project Site Plan is subject to approval as part of the Site Development Permit. Changes to the Project Site Plan must be approved by the City and would be considered a discretionary action subject to CEQA. However, the changes to the Project Site Plan are minor and are in substantial conformity with the Site Development Permit, and do not conflict with any applicable design standards (per the Airport Industrial Park Ordinance #1098) or Project conditions of approval.

Addendum to the Costco Wholesale Project EIR

This Addendum also clarifies and provides additional discussion of Project energy consumption and electrical utilities. The City is clarifying its determination that “the Project would not exceed existing gas and electric supply or result in the wasteful, inefficient, or unnecessary consumption of energy” in part based on the recent court decision, *CCEC v. City of Woodland* (2014) 225 Cal. App. 4th 173, which was published after the City certified the EIR. That decision held that CEQA requires a more detailed discussion of energy use than was previously understood at the time the EIR was certified. This discussion augments, but does not alter, the conclusions of the EIR regarding the effects of Project-related energy usage.

As analyzed below, the approval of the Improvement Agreement by the City and the PSA by the Successor Agency, the minor Project Site Plan revisions, and the additional information on energy consumption do not constitute a substantial change to the project, substantial new information, or otherwise require preparation of a supplemental or subsequent EIR under CEQA Guidelines Sections 15162 or 15163. The information set forth herein constitutes only minor changes and additions to the certified EIR. Therefore, preparation of an Addendum is the appropriate approach under CEQA.

2 COSTCO WHOLESALE PROJECT

The approved Costco Wholesale Project includes the construction of a new Costco Wholesale warehouse, with a maximum size of 148,000 square feet (SF), and a fueling facility on approximately 15.33 acres. The fueling facility will have 16 vehicle fueling positions (with the capacity to expand to 20 positions in the future). The plans submitted with Costco’s building permit application propose a warehouse of 141,125 SF, with a bakery, pharmacy, optical center, hearing aid testing center, food court, photo center, tire center, and fueling facility along with the sale of between 3,800 and 4,000 products. The tire center would be a 5,442 SF attached building with member access through the inside of the main Costco building and would include retail tire sales and a tire installation facility. The fueling facility is separate from the main building site, and would include a 2,816 SF canopy and 16 fueling positions (expandable to 20 positions). The fueling facility occupies approximately 2.37 acres, located in the southeast corner of the site adjacent to US 101. Store hours are anticipated to be 10:00 a.m. to 8:30 p.m. Monday through Friday, 9:30 a.m. to 6:00 p.m. on Saturday, and 10:00 a.m. to 6:00 p.m. on Sunday. Fueling facility hours would be Monday through Friday, 6:00 a.m. to 9:30 p.m., Saturday and Sunday from 6:00 a.m. to 7:00 p.m. Delivery hours will generally occur between 4:00 a.m. and 2:30 p.m. The Costco facility would employ approximately 175 to 200 people.

The Project Site is located in the City of Ukiah, Mendocino County, California. The Project Site consists of at least portions of twelve parcels totaling 15.33 acres (Assessor’s Parcel Numbers 180-110-8 through 10, 180-080-57 through 59, and 180-080-62 through 67). The Project Site is bounded by commercial uses (north and south), US 101 (east), and Airport Park Boulevard

Addendum to the Costco Wholesale Project EIR

(west) (Figure 2-2). The Project Site is within the Airport Industrial Park (AIP) Planned Development. The Airport Industrial Park is bounded by Talmage Road to the north, Ukiah Municipal Airport to the west, and US 101 to the east and south.

The City of Ukiah, as the lead agency under the California Environmental Quality Act (CEQA), prepared an EIR for the Project (State Clearinghouse #2011112025). The Notice of Preparation was released on November 7, 2011. The Draft EIR was released on January 30, 2013, for a public review period of 45 days. The City Council of Ukiah certified the Final EIR on December 18, 2013. The City Council then introduced the first reading of Ordinance 1146, rezoning the Project Site to Retail Commercial. On January 15, 2014, the Ordinance was approved by the City Council. The City of Ukiah Planning Commission approved the Site Development Permit on January 22, 2014. The City Council heard an appeal of the Planning Commission's action on March 5, 2014, and upheld the approval of the Site Development Permit.

3. MINOR CHANGES TO THE PROJECT

3.1 Minor Changes to the Project Description

The following discretionary action by the lead agency is added to the Project Description (Section 2.5.1 of the Costco Draft EIR):

- City Council approval of an Improvement Agreement with the applicant (Costco) for traffic improvements to be constructed by the City
- Successor Agency approval of a Real Property Purchase and Sale Agreement (PSA) for sale of the Project Site to Costco.

Final EIR Figure 2-3, Site Plan, has been replaced with the Revised Site Plan attached to this Addendum which reflects implementation of Mitigation Measure 3.6.4, as addressed below. The changes to the Site Plan, which are further described in Section 3.3, below, include identification of a buffer between the Project Site and the off-site wetlands, a detention basin, a change in the orientation of the fueling facility, a slight reduction in the size of the warehouse, a reduction in the size of the parking lot, additional bioswale areas, additional shade trees, and modification of the parking lot lighting.

The minor revisions to the Project Description, including the Revised Site Plan, do not constitute a substantial change to the Project, substantial new information, or otherwise require preparation of a supplemental or subsequent EIR under CEQA Guidelines Sections 15162 or 15163.

Addendum to the Costco Wholesale Project EIR

3.2 Improvement and Purchase and Sale Agreements

Subsequent to the certification of the EIR and approval of the Project entitlements, the City identified the need to approve the Improvement Agreement and the Successor Agency identified the need to approve the PSA.

The PSA, while a necessary step in the implementation of the Project, does not affect the location, construction, or operation of the Project.

The Improvement Agreement memorializes the terms under which the City agrees to construct certain infrastructure improvements and Costco agrees to develop the site for a Costco Wholesale Store and related facilities. Site development must be consistent with the Site Development Permit approved by the City. The off-site improvements to be constructed by the City include 101/Talmage Improvements. Per Mitigation Measure 3.10.1, the Project cannot be occupied until these improvements have been completed.

The PSA includes Lot 3, a 0.8-acre site in a natural condition that is being purchased by Costco from the Successor Agency for fair market value. No development will take place on the Lot 3 by Costco, and, thus, there are no environmental impact implications for the additional acreage purchase. As set forth in the Improvement Agreement, Costco will transfer Lot 3 to the City for park purposes. The City has not adopted a management plan for Lot 3 and does not propose any changes to the natural condition of Lot until a management plan is developed. Accordingly, the City's acquisition of Lot 3 qualifies for CEQA exemption Class 16: Transfer of Ownership of Land in Order to Create Parks.

The approval of the Improvement Agreement by the City and the PSA by the Successor Agency and a transfer of ownership that qualifies for a Class 16 exemption from CEQA do not constitute a substantial change to the project, substantial new information, or otherwise require preparation of a supplemental or subsequent EIR under CEQA Guidelines Sections 15162 or 15163.

3.3 Drainage Plan and Minor Changes to the Site Plan

The certified EIR included Mitigation Measure 3.6.4, requiring the Project applicant to prepare and submit a Final Drainage Plan to the City Engineer and the Regional Board for approval. This mitigation measure reads as follows:

Measure 3.6.4: The Applicant shall prepare and submit to the City engineer and the North Coast Regional Water Quality Control Board for approval a Final Drainage Plan. The Final Drainage Plan shall include design/plan level depiction of the proposed stormwater drainage facilities on site, including the proposed storm drainage system, vegetated swales, and the water quality

Addendum to the Costco Wholesale Project EIR

features. The following measures shall be implemented within the Final Drainage Plan, based on modeled runoff volumes and flow rates specific to with-Project conditions:

- The applicant shall design, implement, and maintain a stormwater system such that there would be no net increase in Project condition downstream peak flows; and/or, with respect to the additional impervious surface area proposed for the Project, the [applicant] shall design and implement volume- and/or flow-based Treatment Control Best Management Practices (BMPs) as defined in Attachment 4 (pages 5-6) of the State Water Resources Control Board (SWRCB) small municipal separate storm sewer systems (MS4s) General Permit (Small MS4 General Permit) (SWRCB Order 2003-0005-DWQ).
- The Final Drainage Plan is not required to include retention and/or retention features if such features are not necessary to satisfy the above requirements.
- Prior to implementation, design drawings and any related documents or specifications with respect to these required mitigation measures shall be submitted to the City of Ukiah and the North Coast Regional Water Quality Control Board.
- Modification of storm drain facilities within the State right-of-way (U.S. 101), may require an encroachment permit, and shall be submitted to the California Department of Transportation.

A Final Drainage Plan has been submitted to the City and Regional Board as required. In order to accomplish the performance criteria of the Mitigation Measure, minor revisions to the Project Site Plan are required. Some of the key considerations in the development of the plan, and the resulting changes to the Site Plan (see Revised Site Plan), are described below:

1. Measure 3.6.4 requires inclusion of water quality features. The proposed site storm water treatment is modified to meet the following specific project concerns from the Regional Board:
 - a. Maximizes the use of low impact development practices throughout the site, including additional bioswales.
 - b. Consolidates two (2) existing wetland drainage outfalls into one (1) that discharges to a constructed wetland area that provides the following characteristics:
 - i. Separation from new storm drain outfall and existing wetland area
 - ii. Enhance habitat for wildlife
 - iii. Additional floodplain storage

Addendum to the Costco Wholesale Project EIR

The Draft EIR included a Site Plan, Figure 2-3, which identified an on-site detention basin. The Final EIR clarified that such a feature would only be required if necessary to comply with Mitigation Measure 3.6.4. The inclusion of the constructed wetland area, as described in this Addendum and shown on the Revised Site Plan, is consistent with the analysis contained in the Draft and Final EIR.

2. Enhances habitat between the parking lot/fueling facility and the wetland. This is accomplished by rotating the fuel facility (see Revised Site Plan).
3. Reduces the amount of parking to accommodate the enhanced habitat and additional bioswales (see Revised Site Plan).
4. Rehabilitates the wetland area and the enhanced habitat and addresses on-site landscaping improvements by:
 - a. Revising tree species near wetland area to California natives (Valley Oaks and Interior Live Oaks).
 - b. Incorporating wetland grasses adjacent to and within the expanded planting areas south of the gas station (4 different species).
 - c. Modifying tree layout to conform to new bio-swales within the parking lot and behind the building.
 - d. Adding additional shade trees in parking area to comply with parking lot shading requirement.
 - e. Revising shrub planning to incorporate more California native species.
5. Decreases the size of the warehouse, from 148,000 SF to 141,000 SF.
6. Relocates and redesigns parking lot lighting to shield enhanced habitat area from potential lighting spillover (note that this change is also consistent with Mitigation Measure 3.1.2 regarding lighting spillover).
7. Increases water flow into wetland to insure wetland sustainability.

The rotation of the fueling facility does not adversely affect vehicular circulation on-site or pedestrian safety (see Revised Site Plan). However, it does accommodate the enhanced habitat between the Project and the adjacent wetland, while providing for a storm drainage system that meets the requirements of Mitigation Measure 3.64 and all storm water quality and volume standards.

Addendum to the Costco Wholesale Project EIR

The EIR assumes a maximum warehouse size of 148,000 SF. In order to better accommodate the enhanced habitat area, the drainage plan and the associated changes to the Site Plan, the warehouse size has been reduced by approximately 5%, to 141,125 SF. As the impact analysis in the EIR assumes the larger building size, all Project impacts for the 141,125 SF warehouse would be either the same or slightly less than those identified in the certified Final EIR. The reduced parking still meets City parking standards for the smaller warehouse, and in fact addresses public concerns raised during the Project hearings that the Project was over-parked. The Site Plan approved on January 22, 2014, provided for 607 parking spaces. This amount of parking exceeded the 592 spaces required by the City's development code, based on a 148,000 SF warehouse. The Revised Site Plan (Figure 2-3) includes a 141,125 SF warehouse and 579 spaces. The 579 proposed parking spaces meet the minimum parking requirement of 565, based on a 141,125 SF building.

The increase in both the overall number of shade trees and the number of California native trees is also consistent with comments received by the City. While the previous Site Plan was consistent with City requirements, the revisions provide benefits regarding the effectiveness of vegetation for both shade and water quality purposes, and provide enhancements to the existing wetlands adjacent to the Property.

The previous Site Plan (Final EIR Figure 2-3) was approved by the City Planning Commission as part of the Site Development Permit on January 22, 2014. The City has determined that the minor changes to the Project Site Plan (see Figure 2-3, Revised Site Plan) are in substantial conformance with the Project Site Plan approved by the Planning Commission and, therefore, do not require an amendment to the Site Development Permit or further Planning Commission review, although the modification of the Site Plan is subject to City approval and, as a discretionary action, is subject to CEQA.

These changes to the Project Site Plan, as a result of compliance with Mitigation Measure 3.6.4, while relatively minor, are beneficial and will lessen the effects of the Project on the environment. The warehouse building size would be decreased by approximately 5%, although the overall Project operations, including the hours of operation, and the services and goods provided, would not change. The Revised Site Plan does not constitute a substantial change in the Project. Therefore, the Revised Site Plan does not trigger subsequent or supplemental EIR under CEQA Guidelines Sections 15162 and 15163. An addendum is the appropriate documentation of the change.

Addendum to the Costco Wholesale Project EIR

4. ENERGY

4.1 Introduction

CEQA provides that an environmental impact report shall include a detailed statement setting forth all of the following:

Mitigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. (Public Resources Code Section 21100(b)(3)).¹

In addition, Appendix F of the CEQA Guidelines includes suggested information to “assure that energy implications are considered in project decisions.” Appendix F further states that “the California Environmental Quality Act requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)).”

The EIR includes information regarding energy consumption, with particular emphasis on the effects of that energy production on the environment (air quality impacts and greenhouse gas emissions). As part of this Addendum, the City is including additional clarification and technical information regarding Project-related energy usage and conservation features. As described below, this information provides additional technical detail, but does not reflect any modifications to the Project or change the conclusions of the certified EIR and does not identify any new potentially significant impacts or any substantial increase in a significant impact identified in the EIR.

4.2 Energy Resources

4.2.1 Significance Criteria

Neither Appendix F of the CEQA Guidelines nor Public Resources Code Section 21100(b)(3)) offer a threshold of significance that might be used to evaluate the potential significance of the energy effects of a proposed project. Rather, the emphasis is on reducing “the wasteful, inefficient, and unnecessary consumption of energy.” Impact statement 3.9.8 of the EIR (Draft EIR, p. 3.9-14) considered this and concluded that the “Project would not exceed existing gas and electric supply or result in the wasteful, inefficient, or unnecessary consumption of energy.” To clarify, a project’s energy usage would be considered “wasteful, inefficient, and unnecessary”

¹ All Mitigation Measures cited in this Addendum are existing measures contained in the Final EIR and this Addendum does not add or revise any Mitigation Measures.

Addendum to the Costco Wholesale Project EIR

if the project were to violate state and federal energy standards, including Title 24 of the California Code of Regulations. This Addendum provides additional information related to this question, and considers a related criterion: if the project consumed a substantially greater amount of energy, in either the construction or operational phase, than similar projects, it may be considered “wasteful, inefficient, and unnecessary.”

In addition, feasible opportunities to conserve energy or to use alternative fuels or energy systems should be considered. The need to construct additional energy infrastructure as a result of the Project, and the potential effects of that infrastructure on the environment, would also be considered a potentially significant impact. While both of these issues were considered in the Draft and Final EIR, additional information is provided in this Addendum.

4.2.2 Energy Conserving Features of the Project

The EIR identifies mitigation measures to minimize significant effects on the environment. Energy related mitigation measures are incorporated as follows: The Project Description includes a list of “Sustainable Building Features” that are intended to “conserve energy and natural resources” (Draft EIR p. 2-8). These features are considered and incorporated into enforceable mitigation measures, Mitigation Measure 3.2.2a. Additional measures intended to reduce employee vehicle trips were incorporated into the Final EIR as part of Mitigation Measure 3.2.2b. These trip reduction measures, driven by the Project’s significant air quality and GHG impacts, have the effect of reducing the consumption of transportation fuels. Improvements to the bicycle and pedestrian network, incorporated into Mitigation Measures 3.2.2b and 3.10.2b and 3.10.2c, also have the effect of reducing transportation fuels.

Additional information regarding the Daylighting Program identified in the EIR (Draft EIR page 2-9) is as follows:

- According to the applicant, the daylighting program has shaved hundreds of kilowatt hours off the energy load of a typical warehouse. The proposed Project includes over 200 skylights placed strategically throughout the metal roof. Photo sensors are placed at various locations on the roof as well as inside a number of skylights to accurately measure the amount of natural light entering the building. This program allows lights to automatically shut off when they are not needed. Interior warehouse lighting is reduced from 100% to 66% to 33% to 0%, based on daylight contribution through the skylights. Daylight is measured by exterior and interior photo sensors.

Additional energy saving features in the Project include:

- Reflective roof materials that will meet the requirements for the USEPA’s Energy Star energy efficiency program.

Addendum to the Costco Wholesale Project EIR

- The Heat-Reclaim system, which captures heat from the refrigeration lines and uses it to heat water for the building.
- High efficiency restroom water fixtures, which result in a water savings of 40% beyond the building standard. Reduced water usage results in a reduction in energy usage, due to the energy needed to pump, clean, and distribute potable water.

The draft Title 24 (California Code of Regulations) compliance report for the Project indicates that the above features, plus efficient internal heating and cooling, will result in a building energy performance that is 12% more efficient than the Title 24 performance standards (Title 24 Performance Certificate of Compliance, dated 12/17/13, included as Attachment B). As such, the Project would more than comply with state and federal energy standards, including Title 24 of the California Code of Regulations.

4.2.3 Construction Energy Usage

Project construction will require grading, utility installation, foundation construction, building construction, paving, and landscaping installation. All construction is typical for the region and building type, and the Project site does not include unusual circumstances that would require unusually high energy usage. Some import of fill will be required in order to allow gravity flow of water and sewer, as opposed to pumping and/or installing extremely deep lines below surface grade – both of which would be more energy intensive.

The building system is pre-engineered metal (see Draft EIR pp. 2-8 to 2-9). The metal building system contains 80% recycled content and is itself 100% recyclable. The Project design team estimates that by designing a metal warehouse, fewer building materials are consumed in construction compared to full height masonry.² Considered within the context of all construction materials, including 1000 truck trips for fill and 280 truck trips for the slab and foundation, the overall reduction in haul truck trips is 8.5% as compared to a full height masonry building. In addition, building material deliveries would be reduced by 71.5% (50 truck trips for a pre-engineered metal building with a CMU foundation versus 175 truck trips for an all-CMU structure). Therefore, fewer fossil fuels are consumed in transportation, due to the need for less material, under the Project as opposed to a more conventional design. It is further noted that these material trips are well below the standard CalEEMod assumptions for construction emissions for a typical project of similar size.³

² Personal communication, Joseph Welch, MulvannyG2 Architecture, September 26, 2014.

³ For purposes of air emissions, CalEEMod assumes 67 one-way vendor trips per construction day, or 33.5 round trips per day. Construction was assumed to last 300 days, a conservative estimate which likely exceeds the actual construction time.

Addendum to the Costco Wholesale Project EIR

Based on the air quality calculations for Project construction contained in the EIR (Draft EIR Section 3.2 and Appendix B), and using standard fuel consumption estimates⁴, construction would require 97,455 gallons of diesel fuel and 34,815 gallons of gasoline. This includes all off-road construction equipment, hauling, vendor, and worker trips over a 300-working day construction period. This information is included as Attachment A at the end of this Addendum. For the finishing phase of construction, some electricity may be used (e.g., for power tools and work lighting). While this electricity usage cannot be quantified at this time, it would be relatively minor, and well below the operational energy usage discussed below.

Therefore, the Project construction would not consume a greater amount of energy in its construction phase than similar projects.

4.2.4 Operational Energy Usage

As reported in the Draft EIR (Impact 3.98, page 3.9-14), the Project would consume electricity in the approximate amount of 2.44 million kilowatt hours per year (kWh). This estimate was based on a standard 148,000 SF retail warehouse. An updated analysis of the proposed 141,125 SF warehouse shows that the Project is within the normal range for a Costco Wholesale Warehouse, as shown in the comparison of peak design loads, below:

**Table 1
Peak Design Load**

Store	kilowatts
Ukiah (estimated)	1,513
Rohnert Park	1,453
Antioch	1,668
Redwood City	1,489

Source: Costco, August 2014.

Transportation fuel consumption was calculated using the same methodology described for construction. The air quality model analysis presented in the EIR (Section 3.2, Appendix B of the Draft EIR) was used in conjunction with the U.S. Energy Information Administration factors. This resulted in the following usage, shown both before and after the implementation of Mitigation Measures identified in the EIR and approved as part of the Project:

⁴ Fuel usage is estimated using the CalEEMod output for CO², and a kgCO₂/gallon conversion factor, as cited in the U.S. Energy Information Administration Voluntary Reporting of Greenhouse Gases Program, <http://www.eia.gov/oiaf/1605/coefficients.html>, accessed 8/26/14.

Addendum to the Costco Wholesale Project EIR

**Table 2
Transportation Fuels, Project Operations**

Operations	Source	CalEEMod CO2 (MT/yr)	Fuel Type ¹	Factor (kgCO2/gal)	Gallons
Unmitigated	Mobile	8557.87	Gas	8.91	960,479
Mitigated	Mobile	7789.95	Gas	8.91	874,293
				TOTAL % REDUCTION IN GALLONS OF GAS WITH MITIGATION	8.97%

Note: (1) Calculation conservatively assumes all fuel types as gasoline (no diesel, biodiesel, electric, or other energy sources assumed).

Source: ESA, August 2014.

Mitigation Measures for operations, including transportation, identified in the Final EIR and approved as part of the Project include the following:

Measure 3.2.2a: The Project will incorporate sustainability features in building and site design with the goal of reaching a building efficiency rating that is greater than the Title 24 requirement, in order to reduce energy consumption and associated GHG emissions. As set forth in the "Project Description," the project will incorporate the following sustainability features:

- Parking lot light standards are designed to provide even light distribution and use 20% less energy compared to a greater number of fixtures at lower heights. The use of metal halide lamps provide a color corrected white light and a higher level of perceived brightness with less energy than other lamps such as high pressure sodium.
- Locally extracted and manufactured building materials will be utilized where feasible.
- Pre-manufactured building components, including structural framing and metal panels, are designed to minimize waste during construction.
- Pre-manufactured metal wall panels with insulation are designed to conserve energy by increasing R-value and solar reflectivity. Building heat absorption is reduced by a decrease in the thermal mass of the metal wall when compared to a typical masonry block wall.
- Reflective roof material will meet the requirements for the USEPA's Energy Star energy efficiency program. Reflective roofs produce lower heat absorption and thereby lower energy usage during the summer months.
- Skylights are used on the roof to reduce the need for interior lighting. A "daylight harvesting" system monitors and adjusts the mechanical and lighting systems in order to conserve energy. The system includes the skylights, light monitors, energy efficient

Addendum to the Costco Wholesale Project EIR

lighting fixtures, and associated control systems. On a typical sunny day, fewer than one third of the interior lights are needed.

- Tree plantings to reduce summer heat gain within the parking field.
- Planting to incorporate a substantial amount of drought tolerant species.
- Irrigation system to incorporate the use of deep root watering bubblers for parking lot shade trees to minimize water usage and ensure that water goes directly to the intended planting areas.

Measure 3.2.2b: The applicant shall implement the following measures, to the extent feasible and appropriate, to reduce motor vehicle trips and emissions associated with Project operations:

- Promote the use of alternative fueled vehicles and equipment (i.e., CNG, electric, etc.) for Project operations. The applicant shall implement two or more of the following measures:
 - Warehouse equipment, including forklifts, will be electric powered.
 - Landscaping equipment will be electric powered.
 - Preferred parking for zero emission vehicles.
 - Retail fueling station will include a CNG refueling station.
 - Customer parking will include a minimum of one (1) electric recharge station.
- Provide commute incentives for employees to utilize alternative transportation, such as carpool/vanpool, transit, cycling, or walking. A Costco carpool and alternative transportation manager shall be designated to oversee the implementation of these TDM measures. Costco will provide its employees the following incentives:
 - Four carpool parking spaces reserved for Costco employees;
 - Bicycle parking as required by City standards;
 - Employee locker rooms;
 - Rideshare Program, including recognition of rideshare participants at monthly staff meetings and an annual update of rideshare benefits and incentives provided to employees;

Addendum to the Costco Wholesale Project EIR

- A Rideshare Bulletin Board to be located in the employee breakroom, which will contain information about the Rideshare Program, transit, bike routes, and other alternate commute information;
- A Rideshare Newsletter to be published and posted on the Rideshare Bulletin Board on a quarterly basis;
- Costco employees commuting to work in a rideshare program will be eligible for a guaranteed ride home program in the event of an emergency or unexpected situation (such as unscheduled overtime) on the days they rideshare.
- The applicant shall increase transit accessibility. Such measures could include the purchase of transit passes for employees. Also, implement Mitigation Measure 3.10.2a.
- The applicant shall improve the pedestrian and bicycle network. Implement Mitigation Measure 3.10.2b and 2c.

Mitigation Measures 3.10.2a, b, and c, include the following measures to increase alternative transportation:

Measure 3.10.2a: Provide a concrete pad suitable for future location of bus shelter on the northern frontage of the Project site, adjacent to the proposed sidewalk.

Measure 3.10.2b: The Project applicant shall implement the following measures to reduce potential pedestrian impacts associated with the Project:

- Install sidewalks along the Project frontage on Airport Park Boulevard as identified in the project site plan.
- Install high visibility crosswalk markings across driveway entrances to the Project including the existing cul-de-sac on the north side of the project to increase visibility of pedestrians.
- Install ADA compliant curb ramps at driveway crossings and transition points along the Project frontage. Also, ensure that the existing curb ramps at the existing cul-de-sac intersection with Airport Park Boulevard are compliant with current ADA standards.
- Provide an adequate pedestrian connection from the street frontage and main parking area to the retail store entrance (per Ordinance 1098).

Addendum to the Costco Wholesale Project EIR

Measure 3.10.2c: The Project applicant shall implement the following measures to reduce potential bicycle impacts associated with the Project:

- Install Class III bike lanes along the Project frontage on Airport Park Boulevard.
- The Project Applicant shall comply with Ordinance 1098, Airport Industrial Park Planned Development, requirements to install the required number of bicycle parking spaces (long-term spaces [bicycle lockers or covered parking spaces to reduce exposure to the elements and vandalism] for Project employees and short-term spaces for Project patrons and employees [at a convenient location adjacent to the store's primary entry points]). Bicycle racks should be an appropriate design and installed correctly to ensure proper function.

The mitigation measures described above result in an estimated 8.97% savings in transportation energy (see Table 2, above). This calculated savings does not include additional savings from reducing the trip lengths of Mendocino County Costco members who currently drive to Santa Rosa or even more distant Costco warehouses. Based on the economic analysis of the Project prepared for the City of Ukiah, approximately 17% of the shopping trips to the Project are replacing trips that would otherwise be made to Santa Rosa or Rohnert Park.⁵ These savings are not included only because of the difficulty in precisely identifying which trips (and what trip length) would be replaced. However, the Project would substantially reduce fuel consumption for many existing Costco members. Therefore, the Project would not consume a greater amount of energy in its operational phase than similar projects.

4.2.5. Conclusions

The energy saving features of the Project, including those listed in Mitigation Measure 3.2.2a, result in a building that exceeds California's Title 24 standards by 12%. Construction energy usage would be reduced due to the choice of building materials (which also feature a high recycled material content). The mitigation measures described in Section 4.2.3 would result in an estimated 8.97% savings in operational transportation energy. Based on this information, the Project would result in lower energy consumption and would not result in inefficient, wasteful, or unnecessary consumption of energy.

5 UTILITIES

Draft EIR Section 3.9, Utilities and Services, describes the provision of utilities, including energy, to the proposed Project. As described in the EIR, no additional energy infrastructure is required to serve the Project site.

⁵ Memorandum from Brian Grattidge, Dudek, to Charley Stump, City of Ukiah, dated December 16, 2013.

Addendum to the Costco Wholesale Project EIR

In addition to the information contained in this Draft EIR section, the City notes that the energy sources for the electricity provided by the City of Ukiah Utilities Department includes an unusually high percentage of renewable energy sources compared to the state average. Ukiah's 2011 energy supply included 49% eligible renewable sources, compared to a 2010 statewide average of 14%. The "Energy Content Label" for the City (as provided to the State of California) is provided in Table 3, below, and shows the above-average amounts of renewable geothermal and hydroelectric power used in the City.

**Table 3
California Energy Content**

ENERGY RESOURCES	Ukiah 2011 Fuel Mix (Actual)	2010 CA POWER MIX**
Eligible Renewable	49.3%	14%
-- Biomass & waste	0.0%	2%
-- Geothermal	40.1%	5%
-- Small hydroelectric	9.1%	2%
-- Solar	0.0%	0%
-- Wind	0.0%	5%
Coal	0.0%	7%
Large Hydroelectric	25.1%	11%
Natural Gas	0.1%	42%
Nuclear	0.0%	14%
Other	0.0%	0%
Unspecified sources of power*	25.5%	12%
TOTAL	100.0%	100.0%
<p>* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.</p> <p>** Percentages are estimated annually by the California Energy Commission based on the electricity sold to California consumers during the previous year.</p> <p>Source: California Energy Commission, http://www.energy.ca.gov/sb1305/labels/index.html, October 2012</p>		

Addendum to the Costco Wholesale Project EIR

Large hydroelectric energy, while not considered an “eligible” renewable source for purposes of the California Renewable Portfolio, is nevertheless a clean energy source, and at 25% is a substantial component of Ukiah’s energy mix.

In addition, on-site renewable energy sources have been considered. The Project would include pre-wiring and an engineered roof to allow for future solar energy panels. It is Costco standard practice to determine the feasibility of installation of rooftop solar at the time of the completion of warehouse construction and beginning of operation (anticipated build out year is 2017). Factors evaluated by Costco include cost of the solar system, tax incentives, how much power the system will produce and the utility cost of electricity. For the Ukiah Costco warehouse, it is estimated that rooftop solar would only contribute to approximately 25% of the building electricity needs. In contrast, as noted above, Ukiah’s 2011 energy supply included 49% eligible renewable sources and an additional 25% from large hydroelectric – approximately 75% from renewable sources. Thus, renewable energy sources provide the vast majority of the Project’s energy demand.

The other potential source of onsite energy, small wind energy, is infeasible, as the Project site is within the Airport Influence Area of the Ukiah Municipal Airport (which included restrictions on tall structures).

6 CONCLUSION

The approval of the Improvement Agreement and the PSA would not alter the physical characteristics of the Project or affect the location, construction, or operation of the Project.

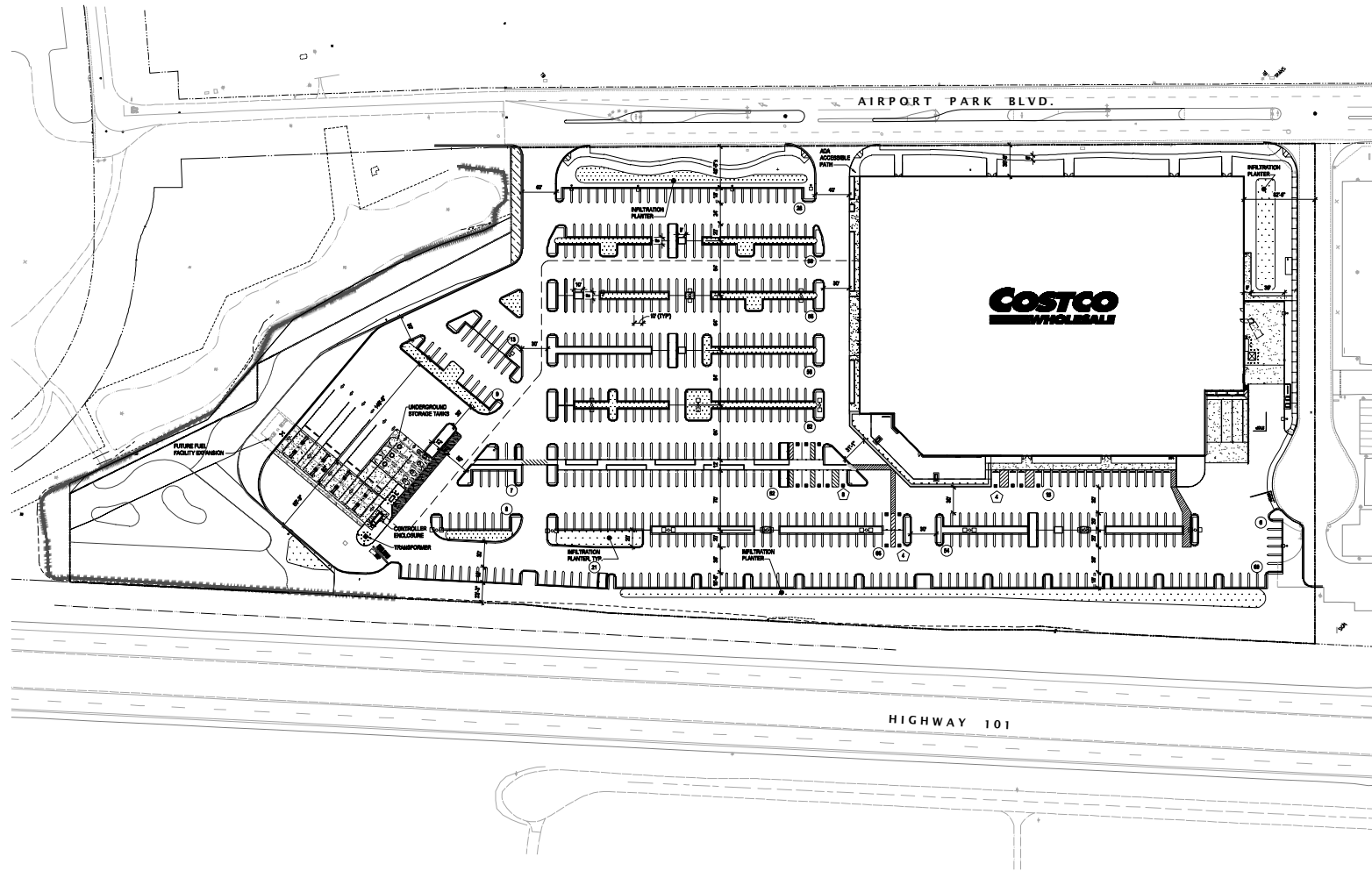
The implementation of the drainage plan per Mitigation Measure 3.6.4 would require minor revisions to the approved Site Plan. These changes primarily affect the layout of the fuel station, which results in a larger buffer between the project and the adjacent wetlands. The Project warehouse size and number of parking places are reduced, but the amount of on-site landscaping, including shade trees, would be increased. These revisions do not conflict with City zoning, development, or design standards, or conditions of approval. The changes are primarily beneficial with regard to environmental resources, and are consistent with the mitigation measures in the certified Final EIR.

The clarifications and additional technical information regarding energy conservation and consumption show that the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. They do not show that the Project would result in a new significant environmental effect or a substantial increase in a significant impact set forth in the certified

Addendum to the Costco Wholesale Project EIR

EIR. Feasible and enforceable mitigation measures have been incorporated into the approval of the Project to conserve energy, per Public Resources Code Section 21100(b).

Therefore, the approval of Improvement Agreement and the PSA, the minor revisions to the Site Plan and the additional information contained within this Addendum, do not constitute substantial changes to the Project, or substantial new information or otherwise require preparation of a subsequent or supplemental EIR under CEQA Guidelines Sections 15162 and 15163. The information set forth herein constitutes only minor changes and additions to the certified EIR. Therefore, preparation of this Addendum is the appropriate approach under CEQA.



PROJECT DATA

CLIENT: COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027

PROJECT ADDRESS: .

SITE DATA:

TOTAL SITE AREA: 15.33 ACRES (667,877 S.F.)
INCLUDES:
WAREHOUSE PARCEL : 12.96 ACRES (564,313 SF)
FUEL FACILITY / DETENTION PARCEL : 2.37 ACRES (103,364 SF)

JURISDICTION: CITY OF UKIAH
ZONING: RETAIL COMMERCIAL

BOUNDARIES INFORMATION: THIS PLAN HAS BEEN PREPARED BY MULVANNY G2 ARCHITECTURE USING A SITE PLAN PREPARED BY KIER & WRIGHT CIVIL ENGINEERS.

BUILDING DATA:

TOTAL BUILDING FOOTPRINT AREA: 141,125 SF
INCLUDES:
TIRE CENTER 5,442 SF

PARKING DATA:

TOTAL PARKING: 579 STALLS
INCLUDES:
MAIN LEVEL PARKING PROVIDED:
10' WIDE STALLS 563 STALLS
ACCESSIBLE STALLS (2 PER 100) 16 STALLS
NUMBER OF STALLS PER 1000 SF OF BUILDING AREA: 4.10 STALLS
JURISDICTIONAL PARKING REQUIRED
1 STALL PER LEASABLE 250 SF (141,125): 565 STALLS

SCALE: 1" = 40'0"



Addendum to the Costco Wholesale Project EIR

Page Intentionally Left Blank

Addendum to the Costco Wholesale Project EIR

ATTACHMENT A

Energy Fuel Usage Calculations

Ukiah Costco - Energy Fuel Usage Calculations

Construction					
Phase	Source	CalEEMod CO2 (MT/yr)	Fuel Type	Factor (kgCO2/gal)*	Gallons
Site Preparation Year 1	Offroad Equip	36.27	Diesel	10.15	3,573.40
	Hauling	0	Diesel	10.15	0.00
	Vendor	0	Diesel	10.15	0.00
	Worker	1.16	Gas	8.91	130.19
Grading Year 1	Offroad Equip	147.69	Diesel	10.15	14,550.74
	Hauling	0	Diesel	10.15	0.00
	Vendor	0	Diesel	10.15	0.00
	Worker	3.86	Gas	8.91	433.22
Building Construction Year 2	Offroad Equip	403.1	Diesel	10.15	39,714.29
	Hauling	0	Diesel	10.15	0.00
	Vendor	166.02	Diesel	10.15	16,356.65
	Worker	220.81	Gas	8.91	24,782.27
Building Construction Year 2	Offroad Equip	146.58	Diesel	10.15	14,441.38
	Hauling	0	Diesel	10.15	0.00
	Vendor	60.5	Diesel	10.15	5,960.59
	Worker	78.58	Gas	8.91	8,819.30
Paving Year 2	Offroad Equip	26.46	Diesel	10.15	2,606.90
	Hauling	0	Diesel	10.15	0.00
	Vendor	0	Diesel	10.15	0.00
	Worker	1.89	Gas	8.91	212.12
Architectural Coating Year 2	Offroad Equip	2.55	Diesel	10.15	251.23
	Hauling	0	Diesel	10.15	0.00
	Vendor	0	Diesel	10.15	0.00
	Worker	3.9	Gas	8.91	437.71
TOTAL					
GALLONS: DIESEL					97,455.17
GAS					34,814.81

Addendum to the Costco Wholesale Project EIR

ATTACHMENT B

Title 24 Performance Certificate of Compliance, 12/17/13

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 1 of 3) **PERF-1C**

Project Name <i>Costco - Ukiah</i>			Date <i>12/17/2013</i>
Project Address <i>Airport Park Blvd. Ukiah</i>	Climate Zone <i>CA Climate Zone 02</i>	Total Cond. Floor Area <i>138,666</i>	Addition Floor Area <i>n/a</i>

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Relocatable - indicate	<input type="checkbox"/> specific climate zone	<input type="checkbox"/> all climates
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration

STATEMENT OF COMPLIANCE
 This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to a Building using the performance compliance approach.

The documentation author hereby certifies that the documentation is accurate and complete.

Documentation Author

Name <i>Paal Ryan</i>	Signature
Company <i>TE Inc.</i>	Date <i>12/17/2013</i>
Address <i>830 N Riverside Drive</i>	Phone <i>425 463 3753</i>
City/State/Zip <i>Renton, WA 98004</i>	

The Principal Designer hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the energy efficiency requirements contained in sections 110, 116 through 118, and 140 through 149 of Title 24, Part 6. Please check one:

ENV. LTG. MECH.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Principal Envelope Designer

Name <i>Shawn Ronning</i>	Signature
Company <i>MulvannyG2 Architecture</i>	Date
Address <i>1110 112th Ave NE Suite 500</i>	License #
City/State/Zip <i>Bellevue, Washington 98004</i>	Phone <i>425 463 2000</i>

Principal Mechanical Designer

Name <i>Paal Ryan</i>	Signature
Company <i>TE Inc</i>	Date
Address <i>830 N Riverside Dr</i>	License #
City/State/Zip <i>Renton, Washington 98057</i>	Phone <i>425 970 3753</i>

Principal Lighting Designer

Name <i>Joel G. Mortenson</i>	Signature
Company <i>TE Inc</i>	Date
Address <i>830 N Riverside Dr</i>	License #
City/State/Zip <i>Renton, Washington 98057</i>	Phone <i>425 970 3753</i>

INSTRUCTIONS TO APPLICANT COMPLIANCE & WORKSHEETS (check box if worksheets are included)

<input checked="" type="checkbox"/> ENV-1C	Certificate of Compliance. Required on plans.	<input checked="" type="checkbox"/> MECH-1C	Certificate of Compliance. Required on plans.
<input checked="" type="checkbox"/> LTG-1C	Certificate of Compliance. Required on plans.	<input checked="" type="checkbox"/> MECH-2C	Air/Water Side/Service Hot Water & Pool Requirements.
<input checked="" type="checkbox"/> LTG-2C	Lighting Controls Credit Worksheet.	<input checked="" type="checkbox"/> MECH-3C	Mechanical Ventilation and Reheat.
<input type="checkbox"/> LTG-3C	Indoor Lighting Power Allowance.	<input checked="" type="checkbox"/> MECH-5C	Mechanical Equipment Details.

PERFORMANCE CERTIFICATE OF COMPLIANCE

(Part 2 of 3)

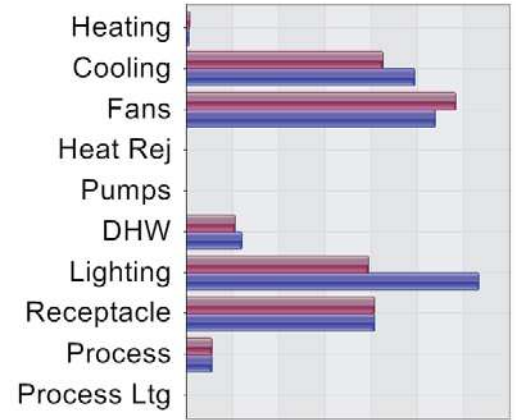
PERF-1C

Project Name
Costco - Ukiah

Date
12/17/2013

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sqft-yr)

Energy Component	Standard Design	Proposed Design	Compliance Margin
Space Heating	1.29	1.60	-0.31
Space Cooling	98.71	85.00	13.71
Indoor Fans	107.81	116.56	-8.75
Heat Rejection	0.00	0.00	0.00
Pumps & Misc.	0.00	0.00	0.00
Domestic Hot Water	23.99	21.17	2.83
Lighting	126.76	78.74	48.02
Receptacle	81.50	81.50	0.00
Process	10.97	10.97	0.00
Process Lighting	0.00	0.00	0.00
TOTALS	451.04	395.53	55.50



Percent better than Standard 12.3 % (12.6 % excluding process)

NOT FOR PERMIT USE - SEE PART 3

GENERAL INFORMATION

Building Orientation	(SE) 135 deg	Conditioned Floor Area	138,666	sqft.
Number of Stories	1	Unconditioned Floor Area	0	sqft.
Number of Systems	19	Conditioned Footprint Area	141,029	sqft.
Number of Zones	9	Natural Gas Available On Site	Yes	

	Orientation	Gross Area	Glazing Area	Glazing Ratio
Front Elevation	(SE)	8,356 sqft.	0 sqft.	0.0 %
Left Elevation	(SW)	5,145 sqft.	0 sqft.	0.0 %
Rear Elevation	(NW)	16,967 sqft.	0 sqft.	0.0 %
Right Elevation	(NE)	10,833 sqft.	0 sqft.	0.0 %
Total		41,301 sqft.	0 sqft.	0.0 %
Roof		141,029 sqft.	6,210 sqft.	4.4 %

Prescriptive Lighting Power Density	Standard: 1.581 W/sqft.	Proposed: 1.042 W/sqft.	Prescriptive Values for Comparison only. See LTG-1C for allowed LPD.
Prescriptive Envelope TDV Energy	5,533,810	8,047,690	

Remarks:

PERFORMANCE CERTIFICATE OF COMPLIANCE

(Part 3 of 3)

PERF-1C

Project Name

Costco - Ukiah

Date

12/17/2013

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf) ¹	Ctrl. Credits (W/sf) ²	Allowed LPD		Proc. Loads (W/sf)
						Area (W/sf) ³	Tailored (W/sf) ⁴	
Main Sales AC-7-17	Main Sales	Retail Sales, Wholesale	130,090	1.025	0.000			
Tire Sales AC-4	Tire Sales	Retail Sales, Wholesale	2,780	0.996				
Pharmacy AC-1	Pharmacy	**Pharmacy/Medicine Room	1,116	1.586				
Office AC-2	Office	Office > 250 sqft	1,040	1.871				
Optical AC-5	Optical	Medical and Clinical Care	450	1.627				
EDP AC-6	EDP	Office <= 250 sqft	109	2.165				20.000
Locker Room AC-32	Locker Room	Office > 250 sqft	1,475	1.280	0.320			
Hearing Aid Center AC-33	HAC	Medical and Clinical Care	206	0.000				
Food Service AC-3	Food Service	Kitchen, Food Preparation	1,400	1.686				17.500

Notes: 1. See LTG-1C (items marked with asterisk, see LTG-1-C by others) 2. See LTG-2C 3. See LTG-3C (by others) 4. See LTG-4C Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justifications, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

- The DHW System Intellihot I-200 is a non-NAECA large storage gas water heater. Verify DHW details.
- The HVAC System Main Sales AC-7-17 includes Demand Control Ventilation per Standards Section 121.
- The HVAC System Tire Sales AC-4 includes Demand Control Ventilation per Standards Section 121.
- The HVAC System Locker Room AC-32 includes Demand Control Ventilation per Standards Section 121.
- The HVAC System YHC092F4RXA--D6 includes an Economizer. This system has a cooling output < 75,000 Btuh or a supply cfm < 2500.
- The HVAC System YHC060F4RXA--D0 includes an Economizer. This system has a cooling output < 75,000 Btuh or a supply cfm < 2500.
- **Denotes an OSHPD Healthcare (I Occupancy) in the list of spaces above. This report may NOT be used for Title 24 permit purposes.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3)

ENV-1C

Project Name Costco - Ukiah			Date 12/17/2013	
Project Address Airport Park Blvd. Ukiah		Climate Zone 2	Total Cond. Floor Area 138,666	
			Addition Floor Area n/a	

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces	<input type="checkbox"/> Unconditioned Spaces
<input type="checkbox"/> Skylight Area for Large Enclosed Space ≥ 8000 ft ² (If checked include the ENV-4C with submittal)			
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input checked="" type="checkbox"/> Overall Envelope	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS					INSULATION								
Tag/ID	Assembly Type	Area (ft ²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring ³	Interior R-Value	Interior Furring ³	Joint Appendix 4	Condition Status	Pass	Fail ²
1	Wall	3,099	(N)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
2	Door	9	(N)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
3	Door	21	(N)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
4	Wall	5,305	(N)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>
5	Door	24	(N)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
6	Door	87	(N)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
7	Wall	3,913	(E)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
8	Door	128	(E)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
9	Door	270	(E)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
10	Wall	6,522	(E)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
 2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID	Fenestration Type	Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	SHGC Source	Overhang	Conditions Status	Pass	Fail ²
1	Skylight	4,800	(N)	0.630	NFRC	0.460	NFRC	<input type="checkbox"/>	New	<input type="checkbox"/>	<input type="checkbox"/>
2	Skylight	1,410	(N)	0.600	NFRC	0.590	NFRC	<input type="checkbox"/>	New	<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
 2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3)

ENV-1C

Project Name Costco - Ukiah			Date 12/17/2013		
Project Address Airport Park Blvd. Ukiah		Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a	

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces	<input type="checkbox"/> Unconditioned Spaces
<input type="checkbox"/> Skylight Area for Large Enclosed Space ≥ 8000 ft ² (If checked include the ENV-4C with submittal)			
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input checked="" type="checkbox"/> Overall Envelope	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS					INSULATION								
Tag/ID	Assembly Type	Area (ft ²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring ³	Interior R-Value	Interior Furring ³	Joint Appendix 4	Condition Status	Pass	Fail ²
11	Wall	3,278	(S)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
12	Door	71	(S)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
13	Door	84	(S)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
14	Wall	4,557	(S)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>
15	Door	34	(S)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
16	Door	332	(S)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
17	Wall	3,786	(W)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
18	Door	178	(W)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
19	Wall	8,374	(N)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>
20	Door	48	(N)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID	Fenestration Type	Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	SHGC Source	Overhang	Conditions Status	Pass	Fail ²
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3)

ENV-1C

Project Name Costco - Ukiah		Date 12/17/2013	
Project Address Airport Park Blvd. Ukiah		Climate Zone 2	Total Cond. Floor Area 138,666
		Addition Floor Area n/a	

GENERAL INFORMATION			
Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces	<input type="checkbox"/> Unconditioned Spaces
<input type="checkbox"/> Skylight Area for Large Enclosed Space ≥ 8000 ft ² (If checked include the ENV-4C with submittal)			
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input checked="" type="checkbox"/> Overall Envelope	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS					INSULATION								
Tag/ID	Assembly Type	Area (ft ²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring ³	Interior R-Value	Interior Furring ³	Joint Appendix 4	Condition Status	Pass	Fail ²
21	Wall	631	(SW)	0.650	None					4.3.5-A9	New	<input type="checkbox"/>	<input type="checkbox"/>
22	Door	32	(SW)	0.700	None					4.5.1-A2	New	<input type="checkbox"/>	<input type="checkbox"/>
23	Door	216	(SW)	1.450	None					4.5.1-A6	New	<input type="checkbox"/>	<input type="checkbox"/>
24	Wall	302	(SW)	0.123	R-11					4.3.9-A4	New	<input type="checkbox"/>	<input type="checkbox"/>
25	Roof	134,819	(N)	0.098	R-19					4.2.7-A5	New	<input type="checkbox"/>	<input type="checkbox"/>
26	Slab	141,029	(N)	0.730	None					4.4.7-A1	New	<input type="checkbox"/>	<input type="checkbox"/>
												<input type="checkbox"/>	<input type="checkbox"/>
												<input type="checkbox"/>	<input type="checkbox"/>
												<input type="checkbox"/>	<input type="checkbox"/>
												<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
 2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID	Fenestration Type	Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	SHGC Source	Overhang	Conditions Status	Pass	Fail ²
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
								<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
 2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 3 of 3)

ENV-1C

Project Name
Costco - Ukiah

Date
12/17/2013

Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for Envelope Fenestrations system. The designer is required to check the acceptance tests and list all the fenestration products that require an acceptance test. If all the site-built fenestration of a certain type requires a test, list the different fenestration products and the number of systems. The NA7 Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Enforcement Agency:

Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or whenever new fenestration is installed in the building or space shall be certified as meeting the Acceptance Requirements. The ENV-2A form is not considered a complete form and is not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the ENV-2A for each different fenestration product line must be provided to the owner of the building for their records.

Test Description		ENV-2A	Test Performed By:
Fenestration Products Name or ID Requiring Testing or Verification	Area of like Products	Building Envelope Acceptance Test	
Skylight - Double	4,800	<input checked="" type="checkbox"/>	
Smokevent - Double	1,410	<input checked="" type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

CERTIFICATE OF COMPLIANCE

(Part 1 of 3)

LTG-1C

Project Name
Costco - Ukiah

Date
12/17/2013

INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST

Installation Certificate, LTG-1- INST (Retain a copy and verify form is completed and signed.)

Field Inspector

Certificate of Acceptance, LTG-2A and LTG-3A (Retain a copy and verify form is completed and signed.)

Field Inspector

A separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces Installed Lighting Power listed on this Lighting Schedule is only for:

CONDITIONED SPACE **UNCONDITIONED SPACE**

The actual indoor lighting power listed below includes all installed permanent and portable lighting systems in accordance with §146(a).

Only for offices: Up to the first 0.2 watts per square foot of portable lighting shall not be required to be included in the calculation of actual indoor lighting power density in accordance with the Exception to §146(a). All portable lighting in excess of 0.2 watts per square foot is totaled below.

Luminaire (Type, Lamps, Ballasts)		Installed Watts							
A	B	C	D	E		F	G	H	
None or Item Tag	Complete Luminaire Description ¹ (i.e, 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballasts)		Watts per Luminaire ¹	How wattage Was determined		Number of Luminaires	Installed Watts (D X F)	Field Inspector ²	
				CEC Default From NA8	According To §130(d or e)			Pass	Fail
A/A1	210w Metal Halide Mag		226.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	500	113,000	<input type="checkbox"/>	<input type="checkbox"/>
C	(2) 4 ft Fluorescent T8 Energy Savings Elec		54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	216	<input type="checkbox"/>	<input type="checkbox"/>
D/E	4 ft LED		59.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	72	4,248	<input type="checkbox"/>	<input type="checkbox"/>
D/E	(4) 4 ft Fluorescent T8 Energy Savings Elec		118.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	53	6,254	<input type="checkbox"/>	<input type="checkbox"/>
HA (R)	(4) 8 ft Fluorescent T8 Rapid Start HO		247.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	59	14,573	<input type="checkbox"/>	<input type="checkbox"/>
J	(2) 32w Linear Fluorescent T5 Elec		58.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	58	<input type="checkbox"/>	<input type="checkbox"/>
J	(2) 4 ft Fluorescent T8 Energy Savings Elec		54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	13	702	<input type="checkbox"/>	<input type="checkbox"/>
J, M	(2) 4 ft Fluorescent T8 Energy Savings Elec		54.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7	378	<input type="checkbox"/>	<input type="checkbox"/>
J/M	(2) 32w Linear Fluorescent T5 Elec		58.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	25	1,450	<input type="checkbox"/>	<input type="checkbox"/>
K	(3) 4 ft Fluorescent T8 Energy Savings Elec		79.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8	632	<input type="checkbox"/>	<input type="checkbox"/>
N	(1) 18w Compact Fluorescent Quad 4 Pin		25.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4	100	<input type="checkbox"/>	<input type="checkbox"/>
Q	(4) 4 ft Fluorescent T8 Energy Savings Elec		118.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	16	1,888	<input type="checkbox"/>	<input type="checkbox"/>
T	8ft LED strip light pendant		77.0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20	1,540	<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
				<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
Installed Watts Page Total:							145,039		
Building total number of pages:				Installed Watts Building Total (Sum of all pages)					
				Enter into LTG-1C Page 4 of 4			145,039		

1. Wattage shall be determined according to Section 130 (d and e). Wattage shall be rating of light fixture, not rating of bulb.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE

(Part 2 of 3)

LTG-1C

Project Name

Costco - Ukiah

Date

12/17/2013

INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST

Fill in controls for all spaces: a) area controls, b) multi-level controls, c) manual daylighting controls for daylit areas > 250 ft², automatic daylighting controls for daylit areas > 2,500 ft², d) shut-off controls, e) display lighting controls, f) tailored lighting controls – general lighting controlled separately from display, ornamental and display case lighting and g) demand responsive automatic controls for retail stores > 50,000 ft², in accordance with Section 131.

MANDATORY LIGHTING CONTROLS – FIELD INSPECTION ENERGY CHECKLIST

Field Inspector

Type/ Description	Number of Units	Location in Building	Special Features	Field Inspector	
				Pass	Fail
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SPECIAL FEATURES INSPECTION CHECKLIST (See Page 2 of 4 of LTG-1C)

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

Field Inspector's Notes or Discrepancies:

CERTIFICATE OF COMPLIANCE (Part 3 of 3) **LTG-1C**

Project Name: *Costco - Ukiah* Date: *12/17/2013*

CONDITIONED AND UNCONDITIONED SPACE LIGHTING MUST NOT BE COMBINED FOR COMPLIANCE

Indoor Lighting Power for Conditioned Spaces		Indoor Lighting Power for Unconditioned Spaces	
	Watts		Watts
Installed Lighting (from Conditioned LTG-1C, Page 2)	145,039	Installed Lighting (from Unconditioned LTG-1C, Page 2)	0
Lighting Control Credit Conditioned Spaces (from LTG-2C)	- 529	Lighting Control Credit Unconditioned Spaces (from LTG-2C)	- 0
Adjusted Installed Lighting Power	= 144,510	Adjusted Installed Lighting Power	= 0
Complies if Installed ≤ Allowed \updownarrow		Complies if Installed ≤ Allowed \updownarrow	
Allowed Lighting Power Conditioned Spaces (from LTG-3C or PERF-1)	144,510	Allowed Lighting Power Unconditioned Spaces (from LTG-3C)	0

Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for the Lighting system, **LTG-2A and LTG-3A**. The designer is required to check the acceptance tests and list all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. If all the lighting system or control of a certain type requires a test, list the different lighting and the number of systems. The NA7 Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately. **Forms can be grouped by type of Luminaire controlled.**

Enforcement Agency:

Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or when ever new lighting system with controls is installed in the building or space shall be certified as meeting the Acceptance Requirements. The **LTG-2A and LTG-3A** forms are not considered complete forms and are not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the **LTG-2A and LTG-3A** for each different lighting luminaire control(s) must be provided to the owner of the building for their records.

Luminaires Controlled				LTG-2A and LTG-3A
Equipment Requiring Testing	Description	Number of Luminaires controlled	Location	Controls and Sensors and Automatic Daylighting Controls Acceptance
Skylight Daylighting	210w Metal Halide Mag	488	Sales Floor	<input checked="" type="checkbox"/>
Occ Sensor - Storage	(2) 4 ft Fluorescent T8 Energy Savings	7	Employee Restroom EF-4	<input checked="" type="checkbox"/>
Skylight Daylighting	210w Metal Halide Mag	12	Tire Sales	<input checked="" type="checkbox"/>
Occ Sensor - Hallway	(4) 4 ft Fluorescent T8 Energy Savings	16	Locker Room	<input checked="" type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name Costco - Ukiah		Date 12/17/2013	
Project Address Airport Park Blvd. Ukiah	Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
			<input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

HVAC SYSTEM DETAILS

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>DHW Heater</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Gas Fired DHW Boiler</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	4	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>199,900 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	94 %	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Main Sales AC-7-17</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	11	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>203,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	78% AFUE	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>271,400 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	11.4 EER	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name Costco - Ukiah		Date 12/17/2013	
Project Address Airport Park Blvd. Ukiah	Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
			<input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

HVAC SYSTEM DETAILS

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Tire Sales AC-4</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>96,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>81% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>85,400 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>12.6 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Pharmacy AC-1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>48,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>80% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>38,900 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>12.7 SEER / 15.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name Costco - Ukiah		Date 12/17/2013	
Project Address Airport Park Blvd. Ukiah	Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
			<input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

HVAC SYSTEM DETAILS

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Office AC-2</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>48,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>80% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>38,900 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>12.7 SEER / 15.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Optical AC-5</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>51,200 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>80% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>21,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.0 SEER / 10.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name Costco - Ukiah		Date 12/17/2013	
Project Address Airport Park Blvd. Ukiah	Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
			<input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

HVAC SYSTEM DETAILS

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>EDP AC-6</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>0 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>14,700 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.0 SEER / 11.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Locker Room AC-32</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>49,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>82% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>54,400 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.0 SEER / 12.6 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 4)

MECH-1C

Project Name Costco - Ukiah		Date 12/17/2013	
Project Address Airport Park Blvd. Ukiah	Climate Zone 2	Total Cond. Floor Area 138,666	Addition Floor Area n/a

GENERAL INFORMATION

Building Type:	<input checked="" type="checkbox"/> Nonresidential	<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Schools (Public School)	<input type="checkbox"/> Relocatable Public School Bldg.	<input checked="" type="checkbox"/> Conditioned Spaces
			<input type="checkbox"/> Unconditioned Spaces (affidavit)
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration
Approach of Compliance:	<input type="checkbox"/> Component	<input type="checkbox"/> Overall Envelope TDV Energy	<input type="checkbox"/> Unconditioned (file affidavit)
Front Orientation: N, E, S, W or in Degrees:	135 deg		

HVAC SYSTEM DETAILS

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Hearing Aid Center AC-33</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>0 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>n/a</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>14,700 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>13.0 SEER / 11.0 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>No Economizer</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

FIELD INSPECTION ENERGY CHECKLIST

Equipment ²	Inspection Criteria	Meets Criteria or Requirements	
		Pass	Fail – Describe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	<i>Food Service AC-3</i>	<input type="checkbox"/>	<input type="checkbox"/>
Equipment Type ³ :	<i>Packaged DX</i>	<input type="checkbox"/>	<input type="checkbox"/>
Number of Systems	<i>1</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Heating Capacity ¹	<i>203,000 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum Heating Efficiency ¹	<i>80% AFUE</i>	<input type="checkbox"/>	<input type="checkbox"/>
Max Allowed Cooling Capacity ¹	<i>213,900 Btu/hr</i>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling Efficiency ¹	<i>11.8 EER</i>	<input type="checkbox"/>	<input type="checkbox"/>
Duct Location/ R-Value	<i>Conditioned / 8.0</i>	<input type="checkbox"/>	<input type="checkbox"/>
When duct testing is required, submit MECH-4A & MECH-4-HERS	<i>No</i>	<input type="checkbox"/>	<input type="checkbox"/>
Economizer	<i>Fixed Temp (Integrated)</i>	<input type="checkbox"/>	<input type="checkbox"/>
Thermostat	<i>Setback Required</i>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Control	<i>Constant Volume</i>	<input type="checkbox"/>	<input type="checkbox"/>

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 3 of 4) MECH-1C

Project Name

Costco - Ukiah

Date

12/17/2013

Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for mechanical systems. The designer is required to check the applicable boxes by all acceptance tests that apply and listed all equipment that requires an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems. The NA number designates the Section in the Appendix of the Nonresidential Reference Appendices Manual that describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Building Departments:

Systems Acceptance: Before occupancy permit is granted for a newly constructed building or space, or a new space-conditioning system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance.
Systems Acceptance: Before occupancy permit is granted. All newly installed HVAC equipment must be tested using the Acceptance Requirements.

The MECH-1C form is not considered a completed form and is not to be accepted by the building department unless the correct boxes are checked. The equipment requiring testing, person performing the test (Example: HVAC installer, TAB contractor, controls contractor, PE in charge of project) and what Acceptance test must be conducted. The following checked-off forms are required for **ALL** newly installed equipment. In addition a Certificate of Acceptance forms shall be submitted to the building department that certifies plans, specifications, installation, certificates, and operating and maintenance information meet the requirements of §10-103(b) and Title-24 Part 6. The building inspector must receive the properly filled out and signed forms before the building can receive final occupancy.

TEST DESCRIPTION	MECH-2A	MECH-3A	MECH-4A	MECH-5A	MECH-6A	MECH-7A	MECH-8A	MECH-9A	MECH-10A	MECH-11A
Equipment Requiring Testing or Verification Qty.										
YHD300F4RXA--DA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
YHC092F4RXA--D6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
YHC036E4RXA--D0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4YCC3024B1064A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4TCC3018A1000A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
YHC060F4RXA--D0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
YHD210F4RXA--D1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

AIR SYSTEM REQUIREMENTS

(Part 1 of 2)

MECH-2C

Project Name Costco - Ukiah	Date 12/17/2013
---------------------------------------	---------------------------

Item or System Tags (i.e. AC-1, RTU-1, HP-1)	Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)			
		Main Sales AC-7-17	Tire Sales AC-4	Pharmacy AC-1
Number of Systems		11	1	1

MANDATORY MEASURES	Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)			
	T-24 Sections			
Heating Equipment Efficiency	112(a)	78% AFUE	81% AFUE	80% AFUE
Cooling Equipment Efficiency	112(a)	11.4 EER	12.6 EER	12.7 SEER / 15.0 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	n/a	n/a
Furnace Controls/Thermostat	112(c), 115(a)	Required	Required	Required
Natural Ventilation	121(b)	No	Yes	No
Mechanical Ventilation	121(b)	32,523 cfm	439 cfm	0 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	Yes	Yes	No
Time Control	122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)		n/a	n/a
Pipe Insulation	123			
Duct Location/ R-value	124	n/a	n/a	Conditioned / 8.0

PRESCRIPTIVE MEASURES

Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	2,233,000 Btu/hr	96,000 Btu/hr	48,000 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	2,891,018 Btu/hr	69,604 Btu/hr	41,192 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144(d)	No	No	No
Economizer	144(e)	Fixed Temp (Integrated)	Fixed Temp (Integrated)	No Economizer
Heat Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating ¹	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	No	No	No

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

AIR SYSTEM REQUIREMENTS

(Part 1 of 2)

MECH-2C

Project Name

Costco - Ukiah

Date

12/17/2013

Item or System Tags (i.e. AC-1, RTU-1, HP-1)	Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)			
		Office AC-2	Optical AC-5	EDP AC-6
Number of Systems		1	1	1

MANDATORY MEASURES	Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)			
	T-24 Sections			
Heating Equipment Efficiency	112(a)	80% AFUE	80% AFUE	n/a
Cooling Equipment Efficiency	112(a)	12.7 SEER / 15.0 EER	13.0 SEER / 10.0 EER	13.0 SEER / 11.0 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	n/a	n/a
Furnace Controls/Thermostat	112(c), 115(a)	Required	Required	n/a
Natural Ventilation	121(b)	No	No	No
Mechanical Ventilation	121(b)	0 cfm	0 cfm	0 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Location/ R-value	124	Conditioned / 8.0	Conditioned / 8.0	Conditioned / 8.0

PRESCRIPTIVE MEASURES

Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	48,000 Btu/hr	51,200 Btu/hr	0 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	41,131 Btu/hr	22,110 Btu/hr	15,329 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144(d)	No	No	No
Economizer	144(e)	No Economizer	No Economizer	No Economizer
Heat Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating ¹	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	No	No	No

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

AIR SYSTEM REQUIREMENTS

(Part 1 of 2)

MECH-2C

Project Name

Costco - Ukiah

Date

12/17/2013

Item or System Tags (i.e. AC-1, RTU-1, HP-1)	Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc...)			
		Locker Room AC-32	Hearing Aid Center AC-33	Food Service AC-3
Number of Systems		1	1	1

MANDATORY MEASURES	Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)			
	T-24 Sections			
Heating Equipment Efficiency	112(a)	82% AFUE	n/a	80% AFUE
Cooling Equipment Efficiency	112(a)	13.0 SEER / 12.6 EER	13.0 SEER / 11.0 EER	11.8 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	n/a	n/a
Furnace Controls/Thermostat	112(c), 115(a)	Required	n/a	Required
Natural Ventilation	121(b)	No	No	No
Mechanical Ventilation	121(b)	0 cfm	0 cfm	2,400 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	Yes	No	No
Time Control	122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Location/ R-value	124	n/a	Conditioned / 8.0	Conditioned / 8.0

PRESCRIPTIVE MEASURES

Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	49,000 Btu/hr	0 Btu/hr	203,000 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	50,981 Btu/hr	15,757 Btu/hr	205,151 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144(d)	No	No	No
Economizer	144(e)	Fixed Temp (Integrated)	No Economizer	Fixed Temp (Integrated)
Heat Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating ¹	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	No	No	No

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

WATER SIDE SYSTEM REQUIREMENTS

(Part 2 of 2)

MECH-2C

Project Name

Costco - Ukiah

Date

12/17/2013

WATER² SIDE SYSTEMS: Chillers, Towers, Boilers, Hydronic Loops

Item or System Tags
(i.e. AC-1, RTU-1, HP-1)¹

Number of Systems

Indicate Page Reference on Plans or Specification²

MANDATORY MEASURES

Equipment Efficiency

Pipe Insulation

T-24 Sections

112(a)

123

PRESCRIPTIVE MEASURES

Cooling Tower Fan Controls

Cooling Tower Flow Controls

Variable Flow System Design

Chiller and Boiler Isolation

CHW and HHW Reset Controls

WLHP Isolation Valves

VSD on CHW, CW & WLHP Pumps>5HP

DP Sensor Location

144(a & b)

144(h)

144(h)

144(j)

144(j)

144(j)

144(j)

144(j)

- The proposed equipment need to match the building plans schedule or specifications. If a requirement is not applicable, put "N/A" in the column next to applicable section.
- For each chiller, cooling tower, boiler, and hydronic loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column next to applicable section.

Service Hot Water, Pool Heating

Item or System Tags
(i.e. WH-1, WHP, DHW, etc...)¹

Number of Systems

DHW Heater

4

Indicate Page Reference on Plans or Schedule²

MANDATORY MEASURES

SERVICE HOT WATER

Certified Water Heater

Water Heater Efficiency

Service Water Heating Installation

Pipe Insulation

111, 113(a)

Intellihot I-200

113(b)

94 %

113(c)

Controls Req.

123

Required

POOL AND SPA

Pool and Spa Efficiency and Control

Pool and Spa Installation

Pool Heater – No Pilot Light

Spa Heater – No Pilot Light

Pipe Insulation

114(a)

n/a

114(b)

n/a

115(c)

n/a

115(d)

n/a

123

n/a

- The Proposed equipment needs to match the building plans schedule or specifications. If a requirement is not applicable, put "N/A" in the column next to applicable section.
- For each water heater, pool heater and domestic water loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

MECHANICAL VENTILATION AND REHEAT

MECH-3C

Project Name
Costco - Ukiah

Date
12/17/2013

MECHANICAL VENTILATION (\$121(b)2)										REHEAT LIMITATION (\$144(d))				
AREA BASIS			OCCUPANCY BASIS				VAV MINIMUM							
A	B	C	D	E	F	G	H	I	J	K	L	M	N	
Zone/System	Condition Area (ft ²)	CFM per ft ²	Min CFM By Area B X C	Number Of People	CFM per Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft ²	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air	
Main Sales	130,090	0.25	32,523				32,523	32,523						
Main Sales AC-7-17						Total	32,523	32,523						
Tire Sales	2,780	0.25	695				695	439					256	
Tire Sales AC-4						Total	695	439						
Pharmacy	1,116	0.30	335				335	0					335	
Pharmacy AC-1						Total	335	0						
Office	1,040	0.15	156				156	0					156	
Office AC-2						Total	156	0						
Optical	450	0.15	68				68	0					68	
Optical AC-5						Total	68	0						
EDP	109	0.15	16				16	0					16	
EDP AC-6						Total	16	0						
Locker Room	1,475	0.15	221				221	0					221	
Locker Room AC-32						Total	221	0						
HAC	206	0.15	31				31	0					31	
			Totals											Column I Total Design Ventilation Air

C Minimum ventilation rate per Section §121, Table 121-A.

E Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.

H Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on an AREA BASIS or OCCUPANCY BASIS (Column D or G).

I Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.

J Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121.

K Condition area (ft²) x 0.4 CFM / ft²; or

L Maximum of Columns H, J, K, or 300 CFM

M This must be less than or equal to Column L and greater than or equal to the sum of Columns H plus N.

N Transfer Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (Column H) and the Design Minimum Air (Column M), Column H minus M.

MECHANICAL EQUIPMENT DETAILS

(Part 1 of 2)

MECH-5C

Project Name

Costco - Ukiah

Date

12/17/2013

CHILLER AND TOWER SUMMARY

PUMPS									
Equipment Name	Type	Qty.	Efficiency	Tons	Qty.	GPM	BHP	Pump Control	

DHW / BOILER SUMMARY

System Name	Type	Distribution	Qty.	Rated Input	Vol. (Gals)	Energy Factor or RE	Standby Loss or Pilot	Tank Ext. R-Value	Status
Intellihot I-200	Large Gas	Kitchen Pipe Ins 4	4	199,900	60	0.94	1.90 %	n/a	New

MULTI-FAMILY CENTRAL WATER HEATING DETAILS

Hot Water Pump									
Control	Qty.	HP	Type	In Plenum	Outside	Buried	Add 1/2" Insulation		
							<input type="checkbox"/>		

CENTRAL SYSTEM RATINGS

HEATING										COOLING			
System Name	Type	Qty.	Output	Aux. kW	Efficiency	Output	Efficiency	Status					
YHD300F4RXXA--DA	Packaged DX	11	203,000	0.0	78% AFUE	271,400	11.4 EER	New					
YHC092F4RXXA--D6	Packaged DX	1	96,000	0.0	81% AFUE	85,400	12.6 EER	New					
YHC036E4RXXA--D0	Packaged DX	2	48,000	0.0	80% AFUE	38,900	12.7 SEER / 15.0 EER	New					
4YCC3024B1064A	Packaged DX	1	51,200	0.0	80% AFUE	21,000	13.0 SEER / 10.0 EER	New					
4TCC3078A1000A	Packaged DX	2		0.0	n/a	14,700	13.0 SEER / 11.0 EER	New					
YHC060F4RXXA--D0	Packaged DX	1	49,000	0.0	82% AFUE	54,400	13.0 SEER / 12.6 EER	New					
YHD210F4RXXA--D1	Packaged DX	1	203,000	0.0	80% AFUE	213,900	11.8 EER	New					

CENTRAL SYSTEM FAN SUMMARY

SUPPLY FAN					RETURN FAN				
System Name	Fan Type	Economizer Type	CFM	BHP	CFM	BHP	CFM	BHP	
YHD300F4RXXA--DA	Constant Volume	Fixed Temp (Integrated)	10,000	7.50	none	none	none	none	
YHC092F4RXXA--D6	Constant Volume	Fixed Temp (Integrated)	2,400	1.00	none	none	none	none	
YHC036E4RXXA--D0	Constant Volume	No Economizer	1,200	1.00	none	none	none	none	
4YCC3024B1064A	Constant Volume	No Economizer	600	0.50	none	none	none	none	
4TCC3078A1000A	Constant Volume	No Economizer	600	0.50	none	none	none	none	
YHC060F4RXXA--D0	Constant Volume	Fixed Temp (Integrated)	2,400	1.00	none	none	none	none	
YHD210F4RXXA--D1	Constant Volume	Fixed Temp (Integrated)	7,000	7.50	none	none	none	none	

EnergyPro 5.1 by EnergySoft User Number: 8011

RunCode: 2013-12-17T10:42:48

ID: 13-426

Page 27 of 33

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL**ENV-MM**

Project Name

Costco - Ukiah

Date

12/17/2013

DESCRIPTION**Building Envelope Measures:**

- §118(a): Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
- §118(c): All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
- §118(f): The opaque portions of framed demising walls in nonresidential buildings shall have insulation with an installed R-value of no less than R-13 between framing members.
- §117(a): All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
- §116(a) 1: Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging).
- §116(a) 2: Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
- §116(a) 3: Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
- §116(b): Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).

LIGHTING MANDATORY MEASURES: NONRESIDENTIAL**LTG-MM**

Project Name

Costco - Ukiah

Date

12/17/2013

Indoor Lighting Measures:**§131(d): Shut-off Controls**

For every floor, all interior lighting systems shall be equipped with a separate automatic control to shut off the lighting.

1. This automatic control shall meet the requirements of Section 119 and may be an occupancy sensor, automatic time switch, or other device capable of automatically shutting off the lighting.

2. Override for Building Lighting Shut-off: The automatic building shut-off system is provided with a manual, accessible override switch in sight of the lights. The area of override is not to exceed 5,000 square feet.

§119(h): Automatic Control Devices Certified: All automatic control devices specified are certified, all alternate equipment shall be certified and installed as directed by the manufacturer.

§111: Fluorescent Ballast and Luminaires Certified: All fluorescent fixtures specified for the project are certified and listed in the Directory. All installed fixtures shall be certified.

§131(a): Individual Room/Area Controls: Each room and area in this building is equipped with a separate switch or occupancy sensor device for each area with floor-to-ceiling walls.

§131(b): Uniform Reduction for Individual Rooms: All rooms and areas greater than 100 square feet and more than 0.8 watts per square foot of lighting load shall be controlled with bi-level switching for uniform reduction of lighting within the room.

§131(c): Daylight Area Control: All rooms with windows and skylights that are greater than 250 square feet and that allow for the effective use of daylight in the area shall have 50% of the lamps in each daylit area controlled by a separate switch; or the effective use of daylight cannot be accomplished because the windows are continuously shaded by a building on the adjacent lot. Diagram of shading during different times of the year is included on plans.

§131(c): Display Lighting. Display lighting shall be separately switched on circuits that are 20 amps or less.6.

Outdoor Lighting Measures:

§130(c)1: Mandatory lighting power determination for medium base sockets without permanently installed ballasts

§132(a): All permanently installed luminaires with lamps rated over 100 Watts either have a lamp efficacy of at least 60 lumens per Watt or are controlled by a motion sensor.

§132(b): All Luminaires with lamps rated greater than 175 Watts in hardscape area, including parking lots, building entrances, canopies, and all outdoor sales areas meet the Cutoff Requirements.

§132(c)1: All permanently installed outdoor lighting meets the control requirements listed.

§132(c): Building facades, parking lots, garages, canopies, and outdoor sales areas meet the Multi-Level Lighting Requirements listed.

CERTIFICATE OF COMPLIANCE (SIGN LIGHTING) (Part 1 of 4) **SLTG-1C**

Project Name Costco - Ukiah	Date 12/17/2013
---------------------------------------	---------------------------

Project Address
Airport Park Blvd. Ukiah, CA 95482

Location of Sign	<input type="checkbox"/> Outdoor Signs	<input type="checkbox"/> Indoor Signs	
Phase of Construction	<input checked="" type="checkbox"/> New Signs	<input type="checkbox"/> Sign Alterations	
Type of Lighting Control	<input type="checkbox"/> New Lighting Controls	<input type="checkbox"/> Replaced Lighting Controls	<input type="checkbox"/> Not Installing Lighting Controls

This Certificate of Compliance includes the following components (check all that apply)
 Mandatory Measures (Lighting Controls) Maximum Allowed Lighting Power Specific Lighting Sources

1. Certificate of Compliance Declaration Statement (this may be a C10, C45 or other eligible person)

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under the Division 3 of the California Business and Professions Code to accept responsibility for the lighting design.
- This Certificate of Compliance identifies the lighting features and performance specifications required for compliance with Title-24, Parts 1 and 6 of the California Code of Regulations.
- The design features represented on this Certificate of Compliance are consistent with the information provided to document this design on the other applicable compliance forms, worksheets, calculations, plans, and specifications submitted to the enforcement agency for approval with this building permit application.

Name <i>Joel G. Mortenson</i>	Signature
----------------------------------	-----------

Company <i>TE Inc</i>	Phone <i>425 970 3753</i>
--------------------------	------------------------------

Address <i>830 N Riverside Dr</i>	License # (may be contractor's lic #)
--------------------------------------	---------------------------------------

City/State/Zip <i>Renton , Washington 98057</i>	Date
--	------

2. Installation Certificate (to be signed by responsible person after installation)

Permit number (Enforcement Agency Use)	Check by/Date (Enforcement Agency Use)
---	---

Installation Declaration statement

- I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.
- I am eligible under the Division 3 of the Business and Professional Code to accept responsibility for construction, or an authorized representative of the person responsible for construction.
- I certify that the installed features, materials, components, or manufactured devices identified on this certificate conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.
- I certify that the requirements detailed on this Certificate of Compliance have been met.
- I will ensure that a completed, signed copy of this Installation Certificate shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Installation Certificate is required to be included with the documentation the builder provides to the building owner at occupancy.

Company Name

Responsible Person's Name	Responsible Person's Signature
---------------------------	--------------------------------

License # (may be contractor's lic #)	Date Signed	Position With Company
---------------------------------------	-------------	-----------------------

CERTIFICATE OF COMPLIANCE (SIGN LIGHTING)

(Part 2 of 4)

SLTG-1C

Project Name

Costco - Ukiah

Date

12/17/2013

3. Mandatory Sign Lighting Controls

NOTES:

- The Mandatory Measures (sign lighting controls) are required for compliance with the sign lighting Standards. The same responsible person may install both the sign and the sign lighting controls, or a different responsible person may install the sign lighting controls than the responsible person installing the sign.
- If the person responsible for installing the sign is not also responsible for the sign lighting controls, then the owner of the sign, general contractor, or architect shall be responsible to have the sign lighting controls installed.
- If more than one person has responsibility for compliance, each person shall prepare and sign a Certificate of Compliance and an Installation Certificate applicable to the portion of construction for which they are responsible; alternatively, the person with chief responsibility for construction shall prepare and sign the Certificate of Compliance Declaration Statement for the entire construction.

3a. Statements of Responsibility:

The person signing the Certificate of Compliance Declaration Statement shall check Yes or No for all of the following statements:

1	I have responsibility for installing the sign lighting controls <input type="checkbox"/> Yes, complete parts 3a and 3b of this form <input type="checkbox"/> No, complete part 3a of this form
2	There are no existing sign lighting controls and I will be installing compliant sign lighting controls <input type="checkbox"/> Yes <input type="checkbox"/> No
3	There are no existing sign lighting controls and someone else will be responsible to install compliant sign lighting controls <input type="checkbox"/> Yes <input type="checkbox"/> No
4	There are existing sign lighting controls that do not comply with the applicable provision of §119 and §133 and I will be installing compliant sign lighting controls <input type="checkbox"/> Yes <input type="checkbox"/> No
5	There are existing sign lighting controls that do not comply with the applicable provision of §119 and §133 and someone else will be responsible to install compliant sign lighting controls <input type="checkbox"/> Yes <input type="checkbox"/> No

3b. Mandatory Sign Lighting Controls

The person signing the Certificate of Compliance Declaration Statement shall answer all of the following questions if they are responsible for complying with the sign lighting control requirements.

If there are construction documents, indicate where on the building plans the mandatory measures (sign lighting control) note block can be located:

1	§133(a)1. All indoor sign lighting is controlled with an automatic time switch control that complies with the applicable requirements of §119.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
2	§133(a)1 and 2. All outdoor sign lighting is controlled with an automatic time switch control plus a photo control, or an outdoor astronomical time switch, that comply with the applicable requirements of §119.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception to §133(a)2. Outdoor signs in tunnels or large covered areas that require illumination during daylight hours.		Y <input type="checkbox"/>	NA <input type="checkbox"/>
3	§133(a)3. All outdoor signs are controlled with a dimmer that provides the ability to automatically reduce sign power by a minimum of 65 percent during nighttime hours.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception 1 to §133(a)3. Signs illuminated for less than one hour per day during daylight hours.		Y <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception 2 to §133(a)3. Outdoor signs in tunnels or large covered areas that require illumination during daylight hours.		Y <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception 3 to §133(a)3. Only metal halide, high pressure sodium, cold cathode, or neon lamps used for illuminating signs or parts of signs.		Y <input type="checkbox"/>	NA <input type="checkbox"/>
4	§133(a)4. An Electronic Message Center (EMC) having a new connected lighting power load greater than 15 kW has a control installed capable of reducing the lighting power by a minimum of 30 percent when receiving a demand response signal that is sent out by the local utility.	Y <input type="checkbox"/>	N <input type="checkbox"/>	NA <input type="checkbox"/>
	Exception to §133(a)4. EMC required by a health or life safety statute, ordinance, or regulation, including but not limited to exit signs and traffic signs.		Y <input type="checkbox"/>	NA <input type="checkbox"/>

Field Inspector Notes:

MECHANICAL MANDATORY MEASURES: NONRESIDENTIAL**MECH-MM**Project Name
*Costco - Ukiah*Date
*12/17/2013***Equipment and System Efficiencies**

- §111: Any appliance for which there is a California standard established in the Appliance Efficiency Regulations will comply with the applicable standard.
- §115(a): Fan type central furnaces shall not have a pilot light.
- §123: Piping, except that conveying fluids at temperatures between 60 and 105 degrees Fahrenheit, or within HVAC equipment, shall be insulated in accordance with Standards Section 123.
- §124: Air handling duct systems shall be installed and insulated in compliance with Sections 601, 602, 603, 604, and 605 of the CMC Standards.

Controls

- §122(e): Each space conditioning system shall be installed with one of the following:
- 1A. Each space conditioning system serving building types such as offices and manufacturing facilities (and all others not explicitly exempt from the requirements of Section 112 (d)) shall be installed with an automatic time switch with an accessible manual override that allows operation of the system during off-hours for up to 4 hours. The time switch shall be capable of programming different schedules for weekdays and weekends and have program backup capabilities that prevent the loss of the device's program and time setting for at least 10 hours if power is interrupted; or
 - 1B. An occupancy sensor to control the operating period of the system; or
 - 1C. A 4-hour timer that can be manually operated to control the operating period of the system.
2. Each space conditioning system shall be installed with controls that temporarily restart and temporarily operate the system as required to maintain a setback heating and/or a setup cooling thermostat setpoint.
- §122(g): Each space conditioning system serving multiple zones with a combined conditioned floor area more than 25,000 square feet shall be provided with isolation zones. Each zone: shall not exceed 25,000 square feet; shall be provided with isolation devices, such as valves or dampers that allow the supply of heating or cooling to be setback or shut off independently of other isolation areas; and shall be controlled by a time control device as described above.
- §122(c): Thermostats shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint stops accessible only to authorized personnel.
- §122(b): Heat pumps shall be installed with controls to prevent electric resistance supplementary heater operation when the heating load can be met by the heat pump alone
- §122(a&b): Each space conditioning system shall be controlled by an individual thermostat that responds to temperature within the zone. Where used to control heating, the control shall be adjustable down to 55 degrees F or lower. For cooling, the control shall be adjustable up to 85 degrees F or higher. Where used for both heating and cooling, the control shall be capable of providing a deadband of at least 5 degrees F within which the supply of heating and cooling is shut off or reduced to a minimum.

Ventilation

- §121(e): Controls shall be provided to allow outside air dampers or devices to be operated at the ventilation rates as specified on these plans.
- §122(f): All gravity ventilating systems shall be provided with automatic or readily accessible manually operated dampers in all openings to the outside, except for combustion air openings.
- §121(f): Ventilation System Acceptance. Before an occupancy permit is granted for a newly constructed building or space, or a new ventilating system serving a building or space is operated for normal use, all ventilation systems serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance

Service Water Heating Systems

- §113(c) Installation
3. Temperature controls for public lavatories. The controls shall limit the outlet Temperature to 110° F.
 2. Circulating service water-heating systems shall have a control capable of automatically turning off the circulating pump when hot water is not required.